## REMARKS

**Claims 1-4, 6-7, 11, and 13-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jamneala, *et al* (hereafter "Jamneala")(6,804,807), in view of Piratelli-Filho, *et al* (hereafter "Piratelli-Filho") (Uncertainty Evaluation in small angle Calibration using ISO GUM Approach and Monte Carlo Method, June 2003). Applicant submits that as currently amended, claims 1-4, 6-7, 11, and 13-16 are not obvious in view of the cited prior art.**

Claim 1 has been amended to emphasize that it is the parameters of the test system that are varied in accordance to the statistical distributions to provide the measurement of the uncertainty in the DUT test parameter that results from variations of the test system components from test system to test system.

Jamneala teaches a method for optimizing the parameters of a model for a particular test system component by running simulations of the component on a simulator and varying the model parameters until the model provides the measured values for the component, or values that are satisfactorily close to the measured values. In the case of Piratelli-Filho, the component is a GSG probe and the model includes three parameters that are optimized to match the model with an actual GSG probe. The optimization involves an iterative procedure that converges to the best fit. There is no teaching of measuring any statistical distribution that characterizes the uncertainties in the derived model parameters, no less the uncertainties that exist from probe to probe.

Piratelli-Filho teaches a method for measuring the overall error in a particular measurement that results from variations in measurements that vary during the measurement process in accordance with known probability distributions. Piratelli-Filho is directed to determining the measurement errors in values provided by an electronic level by utilizing a Monte Carlo algorithm operating with probability distributions representing the errors in the measurement of system that can occur from calibration point to calibration point during calibration of the electronic level. Such errors include temperature variations and errors in measuring angles during the calibration process resulting from such parameters as variations

of the degree of roundness of the cylinders in the apparatus. The corresponding probability distributions relate to variations that occur during the calibration process with the particular apparatus at hand, not to variations from the replacement of a particular element by another element.

Hence, the combination of references in question does not teach all of the limitations of Claim 1, and the claims dependent therefrom. Accordingly, Applicant submits that these claims are not obvious in view of the cited art.

**The Examiner rejected Claim 5 under 35 U.S.C. 103(a) as being unpatentable over Jamneala in view of Piratelli-Filho and further in view of Helisto, et al (hereafter "Helisto") (Measurement Uncertainty in the 1/f noise region: Zener Voltage Standards, IEEE 2000). Applicant submits that as currently amended, claim 5 is not obvious in view of the cited prior art.**

As noted above with respect to Claim 1, from which Claim 5 depends, Applicant submits that Jamneala in view of Piratelli-Filho does not teach the limitations of the base claim. Helisto does not provide the missing motivation. In addition, Helisto teaches measuring Zener voltages in the presence of noise from the test system, but does not teach or suggest measuring the accuracy of the measured Zener voltage from test device to test device based on variations in the noise parameters of the test devices. Accordingly, there are additional grounds for allowing Claim 5.

Applicant notes that the Board reversed the Examiner with respect to claims 8, 9, 10, and 12. Accordingly, the claims have been rewritten in independent form.

Respectfully Submitted,

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Date: August 11, 2009

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